AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously presented) A liquid crystal display (LCD) comprising:

at least one thin film transistor (TFT), an interlayer insulator, and at least one reflective pixel electrode defining at least part of a pixel of the LCD and being supported by a substrate, wherein the interlayer insulator is located at least partially between the reflective pixel electrode and the substrate, and

a film comprising molybdenum nitride formed immediately below and in contact with the reflective pixel electrode, and above and contacting the interlayer insulator, so that the molybdenum nitride is at least partially located between and contacting each of the reflective pixel electrode and the interlayer insulator so that a bottom surface of the molybdenum nitride is located over and contacting a top surface of the interlayer insulator and a top surface of the molybdenum nitride is located under and contacting the reflective pixel electrode.

2. (Previously presented) The LCD according to claim 1, wherein the reflective pixel electrode comprises aluminum (Al).

3. (Previously presented) The LCD according to claim 1, wherein the film comprising molybdenum nitride has a nitrogen content between 5 atomic % and 30 atomic %.

4. (Previously presented) The LCD according to claim 1, wherein the interlayer insulator comprises a photosensitive resin.

5. (Currently amended) The LCD according to claim 1, wherein the interlayer insulator ~~insulating film~~ comprises a polymeric resin.

6. (Canceled)

7. (Previously presented) A liquid crystal display comprising:

a pair of substrates,

a liquid crystal layer between the pair of substrates,

a laminated layer provided on at least one of the substrates, wherein the laminated layer comprises an insulating film and a film comprising molybdenum nitride laminated to and over at least part of the insulating film, so that the molybdenum nitride contacts an upper surface of the insulating film; and

a reflective metal film having a light reflecting function and provided in at least one pixel region of the display for contributing to displaying of images in the display,

wherein the reflective metal film is formed on the laminated layer so as to contact the molybdenum nitride.

8. (Previously presented) The liquid crystal display according to claim 7, wherein the film comprising molybdenum nitride has a nitrogen content between 5 atomic % and 30 atomic %.

9. (Previously presented) The liquid crystal display according to claim 7, wherein the reflective metal film is a pixel electrode for applying a voltage to the liquid crystal layer.

10. (Previously presented) The liquid crystal display according to claim 7, further comprising an electrode comprising indium-tin oxide (ITO) formed on the same substrate on which the reflective metal film is formed, wherein the film comprising molybdenum nitride is provided at least partially between the reflective metal film and the electrode comprising ITO.

11. (Currently amended) A liquid crystal display (LCD) comprising:

at least one thin film transistor (TFT),

an insulating layer at least partially provided over the TFT~~, and wherein address lines of the LCD are in communication with the TFT~~;

at least one reflective pixel electrode defining at least part of a pixel of the LCD; and

a film comprising molybdenum nitride in direct contact with the under-side of said reflective pixel electrode, so that [[the]] molybdenum of said film comprising molybdenum nitride is in direct ~~directly~~ contact with both (a) the under-side of the reflective pixel electrode and (b) an upper surface of the insulating layer ~~between which the molybdenum is directly sandwiched~~.

12-14. (Canceled)

15. (Currently amended) The LCD of claim 1, wherein the pixel electrode is in electrical communication with a drain electrode [[(54)]] of the TFT through a contact hole [[(66)]] defined in the interlayer insulator, and wherein the reflective pixel electrode is located over and contacting the film comprising molybdenum nitride at least in areas ~~spaced apart from~~ not in said contact hole.

16. (Currently amended) The display of claim 7, wherein the reflective metal film is in electrical communication with a drain electrode [[(54)]] of a TFT through a contact hole [[(66)]] defined in the insulating film, and wherein the reflective metal film is located over and contacting the molybdenum nitride at least in areas ~~spaced apart from~~ not in said contact hole.

17. (Currently amended) The LCD of claim 11, wherein the pixel electrode is in electrical communication with a drain electrode [[(54)]] of the TFT through a contact hole [[(66)]] defined in the insulating layer, and wherein the pixel electrode is located over and contacting the film comprising molybdenum nitride at least in areas ~~spaced apart from~~ not in said contact hole.

Claim 1

Claim 1 stands rejected under 35 U.S.C. Section 103(a) as being allegedly unpatentable over Mitsui in view of Hirakawa. This Section 103(a) rejection is respectfully traversed for at least the following reasons.

Claim 1 relates to a liquid crystal display (LCD) including a film comprising molybdenum (Mo) nitride formed immediately below and in contact with a reflective pixel electrode. As explained above, for example, it has unexpectedly been found that the use of molybdenum nitride below a reflective pixel electrode provides improved adhesion between the reflective pixel electrode and the underlying interlayer insulator thereby resulting in better yields. Unexpectedly, reduction of electrolytic corrosion may also be achieved due to the molybdenum (Mo) nitride under the reflective LCD pixel electrode.

The alleged Section 103(a) combination of Mitsui and Hirakawa is fatally flawed. Hirakawa relates to an EPROM – not an LCD. One of ordinary skill in the art would never have used Hirakawa's EPROM structure in a pixel electrode structure of an LCD. EPROMs and LCD are diverse types of devices (i.e., non-analogous) and have virtually nothing to do with one another. Moreover, the MoN barrier layer in Hirakawa is used solely to prevent diffusion into the underlying silicon. This problem in Hirakawa which is solved by the MoN barrier is not present in the LCD of Mitsui. In particular, the pixel electrode of Mitsui does not contact a-Si. Thus, there is absolutely no reason why one of ordinary skill in the art would ever have used Hirakawa's MoN barrier in Mitsui's pixel

electrode because the problem sought to be solved by the MoN in Hirakawa is not present in Mitsui. Thus, the alleged Section 103(a) combination is in error, and should be withdrawn.

Claims 3 and 8

Claim 3 requires that "the film comprising molybdenum nitride has a nitrogen content between 5 atomic % and 30 atomic %." Kurogane fails to disclose or suggest any MoN film having a nitrogen content from 5-30% to enhance adhesion between a reflective metal based layer and an interlayer insulator comprising a resin or the like. The unexpected results associated with the invention of claim 3 are not disclosed or suggested in the art of record. This range would not have been obvious, and the unexpected results associated with the same overcome any possible prima facie case of obviousness relating the claimed range.

Claim 8 defines over the cited art in a similar manner.

Other Claims

Since the Section 103(a) combination of Mitsui and Hirakawa is flawed for the reasons discussed above, all pending claims are in condition for allowance.

Conclusion

For at least the foregoing reasons, it is respectfully requested that all rejections be withdrawn. All claims are in condition for allowance. If any minor matter remains to be resolved, the Examiner is invited to telephone the undersigned with regard to the same.

Respectfully submitted,

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